

# Sound Knowledge Mat Year 4

## Sticky Knowledge- What do I need to know?

Sounds get fainter as the distance from the sound source increases.

Sounds are made when objects vibrate. The vibration makes the air around the object vibrate and the air vibrations enter your ear. We hear them as sounds.

Volume, or loudness, is related to the strength, intensity, pressure, or power of the sound. Bigger/ amplified vibrations result in bigger/louder sounds.

Lower pitch sounds are produced from slower vibrations while higher pitch sounds are produced from faster vibrations.

## Key Vocabulary- What words do I need to know and understand?

<b>Sound</b>	Sound is a form of energy. Sounds are made when objects vibrate.
<b>Ways to create sound:</b>	Bang, blow, shake, pluck.
<b>Volume</b>	Volume is a measure of how loud or soft something sounds and is related to the strength of the vibrations.
<b>Pitch</b>	Pitch refers to how high or low a sound is. The pitch of the sound is due to the frequency of the vibration. Frequency is the number of vibrations per second. If the particles vibrate quickly the sound produced will be high. Sounds are measured in Hertz (Hz). One vibration per second is defined as 1 Hertz
<b>Insulation</b>	Protecting something by surrounding it with material that reduces or prevents the transmission of sound.

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## Sticky Knowledge- What do I need to know?

<b>Week 1</b>	Sound becomes quieter the further it has to travel.
<b>Week 2</b>	Sounds are made and heard through vibrations.
<b>Week 3</b>	Sounds travel through air in vibrations and through the ear medium in order for us to hear them.
<b>Week 4</b>	Pitch allows us to hear sounds and vibration in different noise levels.
<b>Week 5</b>	The loudness of sound can be changed when it passes through different materials.
<b>Week 6</b>	The pitch of sounds and vibrations can change when it is made with different objects.
<b>Week 7</b>	To be able to set up a practical which will investigate if the length of an elastic band can affect the pitch of the sound being produced.

## Key Vocabulary- What words do I need to know and understand?

<b>Amplitude</b>	The size of a vibration. A larger amplitude = a louder sound
<b>Frequency</b>	The speed of vibrations, (measured in hertz-Hz).
<b>Pitch</b>	How high or low a sound is
<b>Soundproof</b>	To prevent sound from passing through.
<b>Sound wave</b>	Vibrations travelling from an object that made a sound
<b>Vibration</b>	A quick movement backwards and forwards
<b>Volume</b>	How loud or quiet a sound is.